

Date: Tuesday, 04/07/2006 2:20:13 PM  
 User: Linda Lacelle

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services	Drawing Name : EC 135 SKIDTUBE ASSEMBLY
Job Number : 27809	
Estimate Number : 12472	
P.O. Number : N/A	Part Number : D135751011
This Issue : 04/07/2006 S.O. No. : N/A	Drawing Number : D3507 PRELIMINARY
Prsht Rev. : NC	Project Number : N/A
First Issue : N/A Type : LANDING GEAR	Drawing Revision : PREL
Previous Run : N/A	Material : N/A
Written By : _____	Due Date : 04/08/2006 Qty: 2 Um: Each
Checked & Approved By : _____	
Comment : Est Rev:A 06-06-21 New Issue JLM	

## Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

1.0	DC	DOCUMENT CONTROL
-----	----	------------------



Comment: DOCUMENT CONTROL

Photocopy bluefile &amp; type labels per PPP D135-751-011 CHG001

N/A

2.0	D2962150	3.540 Outer Tube, Extrud
-----	----------	--------------------------



Comment: Qty.: 1.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

1 D2962-150 Extrusion

B27774 DP 6-7-6

3.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1
-----	----------------	-------------------------



Comment: LANDING GEAR RESOURCE 1

1-Determine square end of tube and deburr

2-Drill #30 pilot holes using DT8678. Open holes to Ø5/16" (0.313"). Deburr holes.

DP 6-7-6

4.0	BENDING	BENDING MACHINE
-----	---------	-----------------



Comment: BENDING MACHINE

Bend tube as per program EC135 on CNC Bender and Dwg D3507. Use 5/16" locator pin on buggy "A"

DP 6-7-6

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Date: Tuesday, 04/07/2006 2:20:14 PM  
User: Linda Lacelle

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: EC 135 SKIDTUBE ASSEMBLY

Job Number: 27809

Part Number: D135751011

Job Number:



Seq. #	Machine Or Operation:	Description :
--------	-----------------------	---------------

5.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1
-----	----------------	-------------------------



Comment: LANDING GEAR RESOURCE 1

1-Cut Fwd end of the tube using DT8185

2-Cut Aft end at VC using DT8185

3-Deburr ends

4-Drill Aft & Fwd Cap holes using DT8678

5-Locate DT8870 & Drill Ground wire hole on top of Tube.

6-Locate DT8870 with 3/16 cleco in Ground wire hole, then Pilot Drill all X-Bolt holes using 3/16" drill.

7-Open Aft & Fwd Cap holes using .208" drill.

8-Drill pilot holes for wearplates using Dt8868

9-Open wearplate holes to Ø19/64" (0.297") as per Dwg D3507.

10-Bore out aft end of tube as per Dwg D3507 & Detail "B".

11-Deburr holes.

DP 6-7-0  
BE 6-7-26

BE 6-7-26 #30

BE 6-7-26

BE 6-7-26

BE 6-7-26

BE 6-7-26  
06-07-25

AFTER ALDINE and print

BE 6-7-26

6.0	QC5	INSPECT WORK TO CURRENT STEP
-----	-----	------------------------------



Comment: INSPECT WORK TO CURRENT STEP

7.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
-----	-----------------	----------------------------



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

BE 06-07-27 (2)

8.0	QC3	INSPECT POWDER COAT/CHEMICAL CONVERSION
-----	-----	---



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

BE 06-07-27 (2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Date: Tuesday, 04/07/2006 2:20:14 PM  
User: Linda Lacelle

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: EC 135 SKIDTUBE ASSEMBLY

Job Number: 27809

Part Number: D135751011

Job Number:



Seq. #: Machine Or Operation: Description :

3-Deburr and blow out chips from inside of tube.

BE 06-07-27 (2)

4-Bond web as per Dwg D3507 & QSI 015

A/R 241 Sike Flex Batch: M101162  
Exp Date: 07-02-01

BE 06-07-27 (2) 2:00  
06-08-01 (2) 8:00

5-Weld x-bolt (D3504-1/-3) spacers as per Dwg D3507 and Detail C-C & D-D.

A/R AL ROD Batch: M100660 BE 06-08-01

6-Grind welds flush

BE/Pm 06-08-01

7-Drill Rivet Holes as per Dwg D3507 Using D18871A&B

BE 06-08-01

8-Deburr Rivet holes.

BE 06-08-01

9-Rivet D3506-1/-3 as per Dwg D3507.

BE 06-08-01

Tools: E

16.0

QC5/9

WELD INSPECTION



Comment: WELD INSPECTION

06-08-01

12/06/08/01 (2)

17.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

Pm 06-08-01

(2)

18.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Wing Walk as per Dwg D3507 and QSI 005 4.4

N/A 06-08-01  
Not required

Batch:

19.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

PL 06/08/08

(1)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Date: Tuesday, 04/07/2006 2:20:14 PM  
User: Linda Lacelle

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: EC 135 SKIDTUBE ASSEMBLY

Job Number: 27809

Part Number: D135751011

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

20.0	ALS71032130	Insert
------	-------------	--------

4



Comment: Qty.: 38.0000 Each(s)/Unit Total : 76.0000 Each(s)

Insert

Batch: m19393

21.0	ALS41032225	Insert
------	-------------	--------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

Insert

Batch: m19393

22.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
------	-----------------	----------------------------



Comment: HAND FINISHING RESOURCE #1

Install Wearplate & Ground Wire inserts as per Dwg D3507.

a.m 06/08/08 (1) (2)  
~~06/08/08~~ (2)

23.0	QC5	INSPECT WORK TO CURRENT STEP
------	-----	------------------------------



Comment: INSPECT WORK TO CURRENT STEP

Inspect Inserts

~~ID~~ 06/08/08 (2)

24.0	D2965	Cap
------	-------	-----



Comment: Qty.: 2.0000 Each(s)/Unit Total : 4.0000 Each(s)

Cap

Batch: m19772

25.0	D35081	WEARPLATE
------	--------	-----------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

WEARPLATE

Batch: B27710

26.0	D35083	WEARPLATE
------	--------	-----------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

WEARPLATE

Batch: B27714

~~DL~~

a.m

06-08-08

(2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_



Date: Tuesday, 04/07/2006 2:20:14 PM  
User: Linda Laelle

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: EC 135 SKIDTUBE ASSEMBLY

Job Number: 27809

Part Number: D135751011

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

27.0	D35085	WEARPLATE
------	--------	-----------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

WEARPLATE

Batch: B27712

28.0	D35087	WEARPLATE
------	--------	-----------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 2.0000 Each(s)

WEARPLATE

Batch: B27713

29.0	D3492041	PLUG ASSEMBLY
------	----------	---------------



Comment: Qty.: 4.0000 Each(s)/Unit Total : 8.0000 Each(s)

PLUG ASSEMBLY

Batch: 26304

30.0	D3492047	PLUG ASSEMBLY
------	----------	---------------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 4.0000 Each(s)

PLUG ASSEMBLY

Batch: B27776

31.0	AN960JD10L	Washer
------	------------	--------



Comment: Qty.: 35.0000 Each(s)/Unit Total : 70.0000 Each(s)

Washer

Batch: M100223

32.0	MS27039108	Screw
------	------------	-------



Comment: Qty.: 31.0000 Each(s)/Unit Total : 62.0000 Each(s)

Screw

Batch: M19551

33.0	MS27039109	Screw
------	------------	-------



Comment: Qty.: 4.0000 Each(s)/Unit Total : 8.0000 Each(s)

Screw

Batch: M8912

DL 06/08/08 (2)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector	

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Date: Tuesday, 04/07/2006 2:20:14 PM  
User: Linda Lacelle

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: EC 135 SKIDTUBE ASSEMBLY

Job Number: 27809

Part Number: D135751011

Job Number:



Seq. #:

Machine Or Operation:

Description :

34.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

1-Inspect for Foreign objects

2-Install Fwd & Aft caps as per Dwg D3507 And Detail "A" & "B"

A/R 241 Sika Flex Batch: M10112G

Exp Date: 11/09

3-Install Wearplates as per Dwg D3507 ,seal screws with sikaflex.

Note:Install (1) srcrew and (1) washer on Ground Wire insert on top of tube

Do not Install Scews where indicated on Dwg(Note #6)

A/R 241 Sika Flex Batch: M10112G

Exp Date: 11/09

4-Install Plug assemblys as per Dwg D3507.

DL 06/08/08 (2)

35.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

RL 06-01-08

36.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

37.0

D35121

WEARPLATE



B27716



Comment: Qty.: 2.0000 Each(s)/Unit Total : 4.0000 Each(s)

WEARPLATE

A/R 241 Sika Flex Batch:                     

Exp Date:                     

06.08.09

38.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

DL 06/08/10 (2)

37.1 8

M527039-1-08

Batch M100854

37.2 8

AN960SD10L

Batch: M101291

06/08/10

Date: Tuesday, 04/07/2006 2:20:14 PM  
User: Linda Lacelle

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: EC 135 SKIDTUBE ASSEMBLY

Job Number: 27809

Part Number: D135751011

Job Number:



Seq. #:

Machine Or Operation:

Description :

39.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D135-751-011

Location: \_\_\_\_\_

PPP Rev: \_\_\_\_\_

Place completed  
skids in eng. lab RH 06.07.28

40.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

06.08.25

Job Completion



U 06.08.24

Return  
completed  
w/o to RH

RH 06.07.28

**PRELIMINARY ISSUE**

DESIGN <i>PH</i>	DRAWN BY <i>PH</i>	<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA	
CHECKED	APPROVED	DRAWING NO. D3507	REV. A SHEET 1 OF 2
DATE 06.04.21		TITLE EC 135 SKIDTUBE	SCALE NTS
A	06.04.21	NEW ISSUE	

Qty	Part Number	Description
X	D3507-041	SKIDTUBE ASSEMBLY
1	D2962-150	EXTRUSION
2	D2965	CAP
2	D3504-1	CROSS BOLT SPACER
1	D3504-3	CROSS BOLT SPACER
1	D3505-1	WEB
4	D3506-1	DOUBLER
2	D3506-3	DOUBLER
1	D3508-1	WEARPLATE
1	D3508-3	WEARPLATE
1	D3508-5	WEARPLATE
1	D3508-7	WEARPLATE
4	D3492-041	PLUG ASSEMBLY
2	D3492-047	PLUG ASSEMBLY
38	AELS-1032-130	INSERT
1	AELS-1032-225	INSERT
35	AN960JD10L	WASHER
12	MS20601AD4W3	RIVET
31	MS27039-1-08	SCREW
4	MS27039-1-09	SCREW

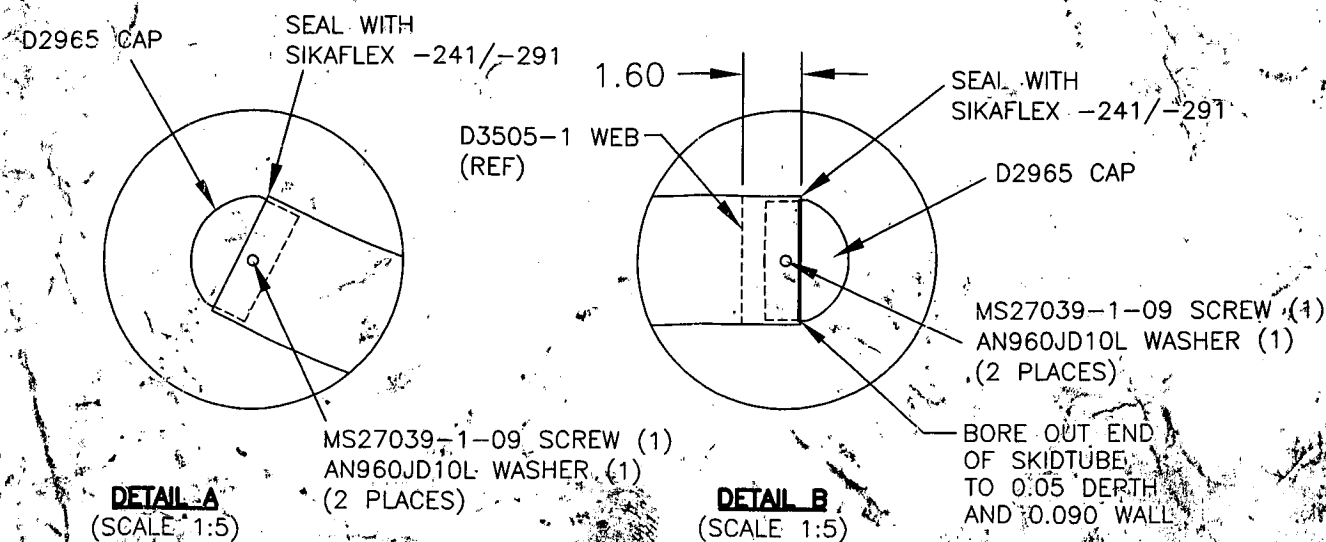
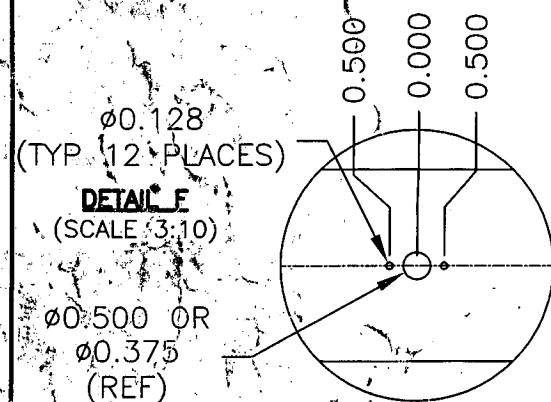
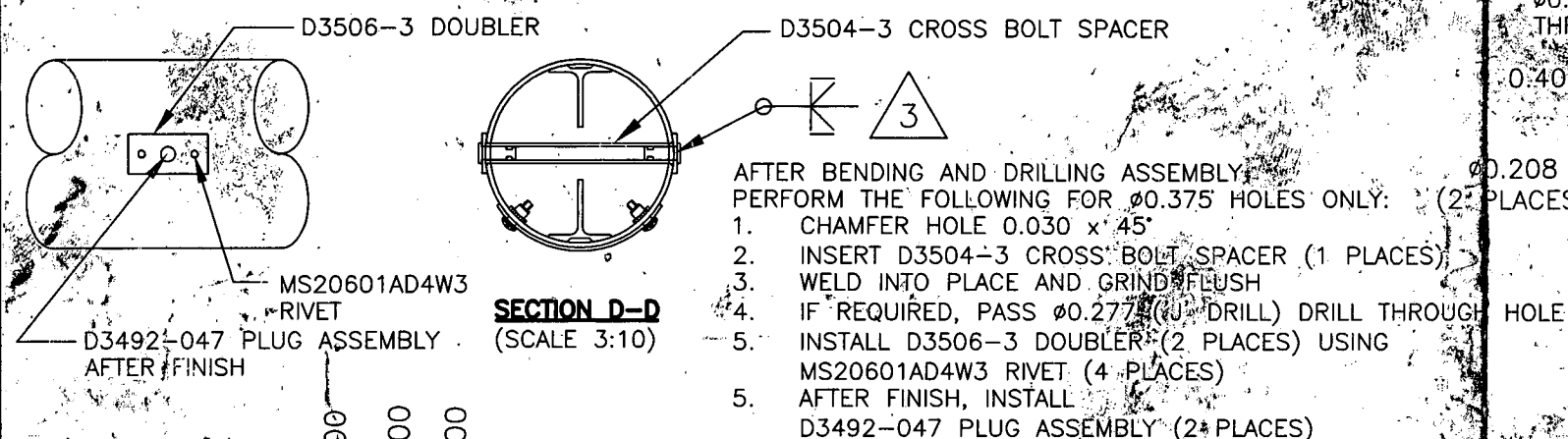
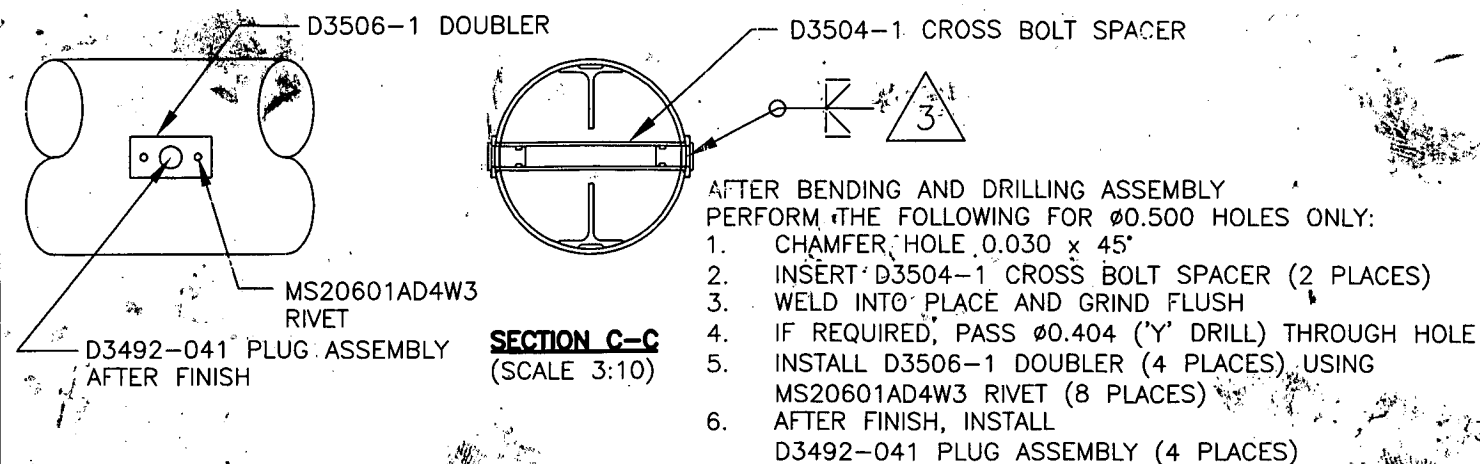
**GENERAL NOTES:**

- 1) ALL DIMENSIONS ARE IN INCHES
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) WELDING TO BE DONE PER DART QSI 004.
- 4) INSERT D3505-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015 AFTER BENDING.
- 5) USE DART DRILL TEMPLATE DT8868 TO LOCATE AND DRILL Ø0.297 HOLES (40 PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION C-C (38 PLACES) AFTER FINISH. SEAL WEARPLATE SCREWS WITH SIKAFLEX-241/-291.
- 6) DO NOT INSTALL MS27039-1-08 SCREWS AND AN960JD10L WASHERS IN INDICATED LOCATIONS.
- 7) FINISH:  
CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3505-1 WEB. POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3. ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART QSI 005 4.4 (OPTIONAL)

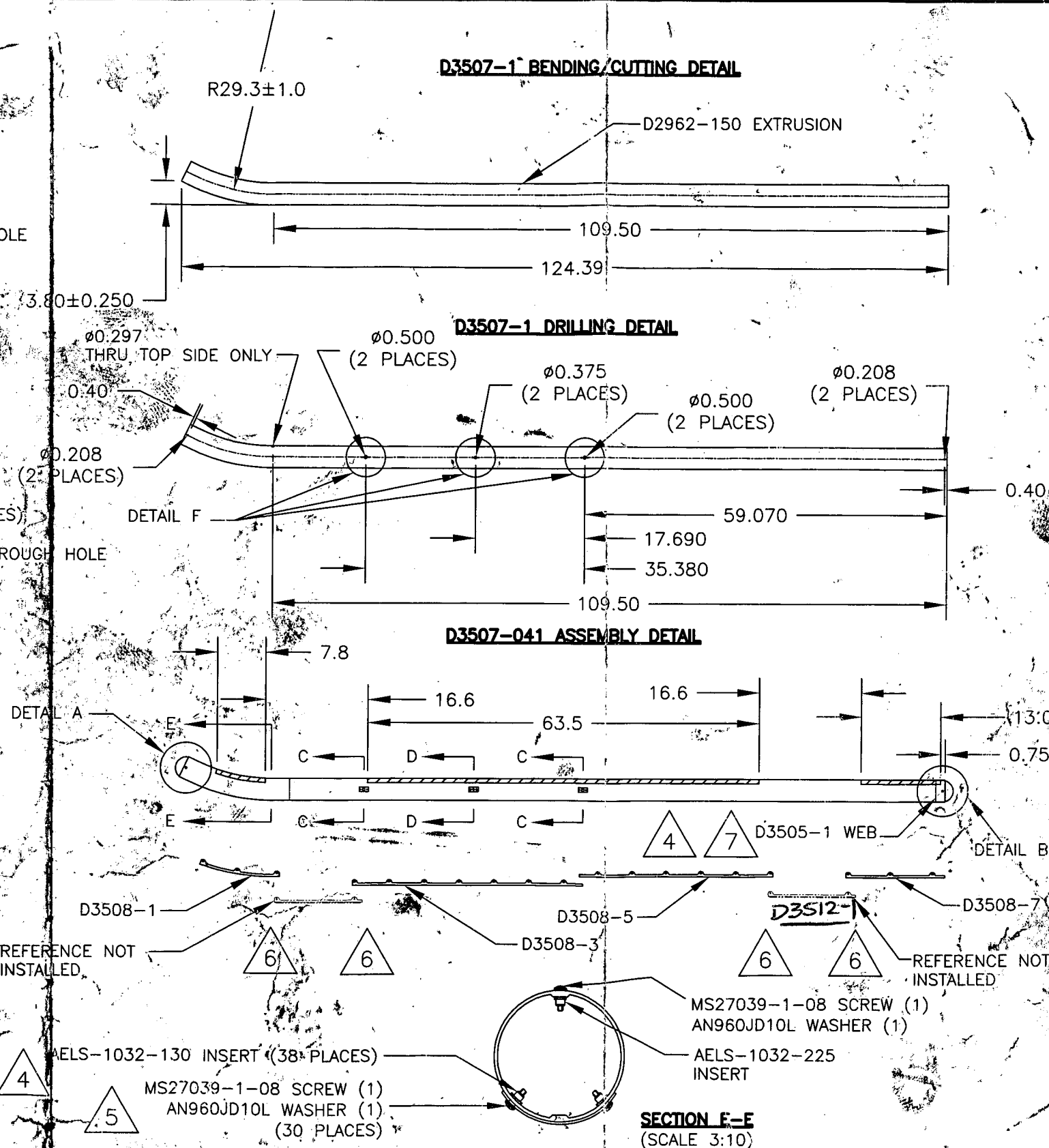
**Copyright © 2006 by DART AEROSPACE USA, INC.**

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.





**PRELIMINARY ISSUE**



COPYRIGHT © 2006 BY DART AEROSPACE USA, INC.		DESIGN	DRAWN BY	DART AEROSPACE USA, INC.	
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC.		PH	PH	PORT HADLOCK, WA	
CHECKED		APPROVED		DRAWING NO.	REV. A
DATE		06.04.21		D3507	SHEET 2 OF 2
TITLE		EC 135 SKIDTUBE ASSEMBLY		SCALE	
				1:20	





Date: Tuesday, 04/07/2006 2:20:14 PM  
User: Linda Lacelle

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: EC 135 SKIDTUBE ASSEMBLY

Job Number: 27809

Part Number: D135751011

Job Number:



Seq. #:	Machine Or Operation:	Description :
---------	-----------------------	---------------

9.0	D35043	CROSSBOLT SPACER
-----	--------	------------------



Comment: Qty.: 2.0000 Each(s)/Unit Total: 4.0000 Each(s)

CROSSBOLT SPACER

Batch: B28034 BE 06-08-01

10.0	D35041	CROSSBOLT SPACER
------	--------	------------------



Comment: Qty.: 2.0000 Each(s)/Unit Total: 4.0000 Each(s)

CROSSBOLT SPACER

Batch: B28033 BE 06-08-01

11.0	D35051	WEB
------	--------	-----



Comment: Qty.: 1.0000 Each(s)/Unit Total: 2.0000 Each(s)

WEB

Batch: B27811 BE 06-07-27 (2)

12.0	D35061	DOUBLER
------	--------	---------



Comment: Qty.: 4.0000 Each(s)/Unit Total: 8.0000 Each(s)

DOUBLER

Batch: B27714 BE 06-08-01

13.0	D35063	DOUBLER
------	--------	---------



Comment: Qty.: 2.0000 Each(s)/Unit Total: 4.0000 Each(s)

DOUBLER

Batch: B27715 BE 06-08-01

14.0	MS20601AD4W3	Rivet
------	--------------	-------



Comment: Qty.: 12.0000 Each(s)/Unit Total: 24.0000 Each(s)

Rivet

Batch: M 8325 BE 06-08-01

15.0	LANDING GEAR 1	LANDING GEAR RESOURCE 1
------	----------------	-------------------------



Comment: LANDING GEAR RESOURCE 1

1-Open X-Bolt holes to .375"(2Places) & .500"(2Places) as per Dwg D3507. and Detail "F"

2-Counter Sink X-BOLT holes as per Dwg D3507

BE 06-07-27 (2)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☐ No ☐ DQA: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_